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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,013	10/18/2001	Ellen M. Heath	101.010US02 DIV	6395
7590	06/28/2004		EXAMINER	
FOGG, SLIFER & POLGLAZE, P.A. P.O. Box 581009 Minneapolis, MN 55458-1009			GORDON, BRIAN R	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/004,013	HEATH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian R. Gordon	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 10-18-01.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-18 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-9, 15 and 17 is/are rejected.  
 7) Claim(s) 10-14, 16, 18 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1-15-02</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The disclosure is objected to because of the following informalities: Throughout the specification reference numerals "112" and "116" both refer to the vessel.

On page 8, second paragraph, reference numeral "112" also refers to the locking arm.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 4, which depends upon 1, it is unclear how the device can function with a cap rotator without comprising a cap. It appears as if the claim should depend upon claim 3, which claims a threaded cap.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6, 9, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Tarlow et al., US 4,819,102.

Tarlow et al. disclose a container display stand including an upright display stand having a plurality of spaced apertures (opening) extending through the stand (locking arm) from the front to rear thereof. These apertures are angled downwardly and a container is disposed in one or more of the apertures extending therethrough from the front to rear thereof. Each container (thread vessel) comprises a jar having a threaded neck. A flanged insert (locking device/partition) has one end threaded to the neck and the other end extending through the opening. A flange separates the ends and abuts against the rear side of the stand. A cap (flanged threaded cap) is threaded on to the protruding other end of the insert extending through the opening, the cap having a flange abutting against the front side of the stand thereby securing the containers in the apertures. The cap has a semi-circular opening presenting a closed portion at the bottom with an open portion at the top selectively closed by a semi-circular closure member. The closure member is movable about the semi-circular portion of the cap to either close off the semi-circular opening or open the same.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarlow et al. as applied to claims 1-3, 6, 9, 15, and 17 above, and further in view of Long, Jr. US 6,059,134.

Tarlow et al., do not disclose that the cap and container have disjointed threads.

Long Jr. discloses a snap-on, screw-off closure and container that have multiple discontinuous mating threads. As it appears in the figures each thread extends about 180 degrees around the vessel neck and each thread starts in a location about 90 degrees away from an adjacent thread. The device is manufactured from plastic and more preferably a high density plastic suitable for blow molding of the thread finish. The molding process makes it obvious that the design and location of the threads may be altered as so desired.

Helically extending between first end 14 and the second end 16 of the annular wall 12 are an appropriate number of threads to permit snap-on or screw-on application, preferably eight or nine threads 24 terminating at points 26 and 27 proximate to the first end 14 and second end 16 of annular wall 12, respectively. Preferably, threads 24 are helically spaced in a continuous relationship as shown in FIG. 1 but threads 24 can alternately be discontinuous and can take on any cross-sectional profile suitable for mating with threads 43 on the closure 30 during snap and screw-on application of the closure 30 to the neck finish 10 (column 3, lines 57-67).

It would have been obvious that if the threads of the cap and vessel are manufactured to a certain same length the securing of the vessel will be accomplished when the cap is turned in the direction of applying the cap that certain distance and removing the cap would occur when the cap is turned in the opposite direction that same certain length.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Tarlow et al., to include the principles of Long Jr. et al in order develop a closure which would indicate tampering of the seal.

The examiner asserts that it would have been obvious to one of the ordinary skill in the art to modify the device by employing the disjoined threaded formation of Long Jr., for it has been disclosed that both single and multiple threads are conventional and well-known in the art for providing a secure attachment of a cap to a vessel. As to the number of threads and the spacing on the cap, it has been disclosed (cited references, Folchini, Collins, Edwards, and Edwards et al.) that "four-start" threads are also conventional and well known in the art. It is obvious that the spacing of the threads depends on the total number of the threads; therefore, if four threads are to be equally spaced around a 360 degrees perimeter, then each thread would obviously be spaced 90 degrees from an adjacent thread. Although Long Jr. discloses the use of 8 or 9 equally spaced threads, this does not preclude the use of a conventional "four-start" thread configuration to provide suitable closure means for a cap and vessel assembly. The examiner hereby asserts that the employment of a well-known, "conventional" thread format does not distinguish the claimed invention over the prior art.

***Claim Rejections - 35 USC § 103***

11. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarlow et al. as applied to claims 1-3, 6, 9, 15, and 17 above, and further in view of Ouellette US 3,803,795.

Tarlow et al. does not disclose a cap rotator with a suction cup.

Ouellette discloses an apparatus for automatically removing closures from containers.

As seen in FIG. 10, the cap rotator includes the lower portion of shaft 86 that is threaded into inner annular portion 144, as shown at 114, and is held in place by a lock nut 116. The lower end 118 of shaft 86 extends into the cavity formed by the inner surface of inner annular portion 104 (blades), and mounted thereon is a downwardly oriented suction cup 120, which may be of rubber. The bottom surface of the suction cup 120 is normally approximately in line with the bottom edge of the serrated portion 110 such that the upper surface 122 of bottle closure 112 comes into contact with the suction cup as the closure enters the serrated portion of the inner annular member 104. The suction cup has a hollow interior 124 which communicates with the hollow interior 126 of shaft 86, which in turn communicates through orifices 128 with the vacuum and pressure chambers 88 and 90. Orifices 128 are positioned longitudinally of shaft 86 such that when the closure removing device 40 is in its downward position in contact with a closure member, orifice 128 is within vacuum chamber 88, thus drawing a vacuum within the interior 124 of suction cup 120 to cause the same to adhere to the upper surface 122 of closure member 112.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the decapper of Ouellette in combination with the storage array of Tarlow et al. in order to allow for efficient use of empty containers by allowing for the caps to be removed to begin a recycle or refilling of the containers.

***Allowable Subject Matter***

12. Claims 10-14, 16, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach nor fairly suggest a device wherein the locking arm further comprises a plurality of vessel openings and a matching plurality of locking ports, each of the vessel openings sized to accommodate a vessel, and each of the locking ports capable of retaining the vessel in the locking arm.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Davidson, Charlton; Gasparre, Pasquale ; Atwell, David R.; Sancoff, Gregory E. et al.; Baker, Denise J. et al.; Klefbeck, Robert J.; Villaveces, James W.; Villaveces, James W.; Frangel, William L.; Trick, O. Lee et al.; Alvi, Javid R. ; Elton, Raymond C. et al.; Beltrop, Herbert et al.; Gates, Wendall C.; Grussen, Jean; CASSIERE FRANK A et al.; and MCGUINNESS JOSEPH J; disclose container support devices.

Folchini, Edwards, Collins, and Edwards et al. disclose disjointed thread configuration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

brg

  
Jill Warden  
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